## Abstract of the Disclosure

The recombinant production of Gap4, a chimeric GapC plasmin binding protein comprising the entire amino acid sequence of the *Streptococcus dysgalactiae* GapC protein in addition to unique amino acid sequences from the *Streptococcus parauberis* and *Streptococcus agalactiae* GapC proteins, is described. Also described is the use of Gap4 chimeric GapC protein in vaccine compositions to prevent or treat streptococcal infections in general and mastitis in particular.